

### Abstract

The invention includes a process for converting biomass into C<sub>7</sub>-C<sub>10</sub> alkylbenzenes useful  
5 as blending components for petroleum or petroleum derived fuels. The process includes a base  
catalyzed depolymerization of lignin within the biomass, followed by hydroprocessing of the  
depolymerized lignin to C<sub>7</sub>-C<sub>10</sub> alkylbenzenes. The C<sub>7</sub>-C<sub>10</sub> alkylbenzenes are useful for  
enhancing the octane level of petroleum or petroleum-derived fuels, such as gasoline. In  
addition, the C<sub>7</sub>-C<sub>10</sub> alkylbenzenes are useful as intermediates in the production of numerous  
10 organic chemicals.